

## CLAIMS

What is claimed is:

1. ✓ A method of forming retroreflective sheeting comprising:

- a) forming a mold by:
  - 5 (i) forming three sets of parallel grooves in a body of mold material; the grooves intersecting at an angle to form a plurality of prisms each prism having a base and three intersecting lateral faces which meet at an apex;
  - (ii) removing a portion of at least one face of a prism to form a shorter size prism adjacent a taller size prism and a cut surface therebetween;
- 10 b) texturing some, but not all, of the surfaces of the faces and cut surface;
- c) forming a replica of the mold;
- d) forming the sheeting in the replica; and
- 15 e) removing the sheeting from the mold.

2. The method of Claim 1 wherein the prisms are formed in pairs and wherein the prisms have a tilted optical axis.

3. The method of Claim 1 wherein the step of removing the portion of at least one face of a prism comprises fly-cutting.

20 4. The method of Claim 1 wherein the shorter size prism is formed to have a skewed optical axis.

5. Retroreflective sheeting formed by the method of Claim 1.

6. The method of Claim 1 further including the step of metallizing the sheeting on a prism face side.

25 ✓ A method of forming retroreflective sheeting comprising:

- a) forming a mold by forming three sets of parallel grooves in a body of mold material; the grooves intersecting at an angle to form a plurality of

prisms, each prism having a base and three intersecting lateral faces which meet at an apex;

5       b) texturing at least a portion, but not all portions, of the surfaces of the faces;

      c) forming a replica of the mold;

      d) forming the sheeting in the replica; and

      e) removing the sheeting from the replica.

8. The method of Claim 7 wherein the step of texturing the surfaces of the faces comprises:

10      a) coating the faces with a layer of photoresist;

          b) exposing the photoresist to a substantially random speckle pattern;

          c) developing the exposed photoresist and selectively removing the developed photoresist; and

          d) etching the mold in the areas of the speckled pattern.

15    9. The method of Claim 8 wherein the random speckled pattern is formed by illuminating a diffusion screen with a plane wave of coherent light.

      10. The method of Claim 8 wherein the pattern is asymmetric.

      11. The method of Claim 9 wherein the coherent light is scanned across the

20      diffusion screen.

      12. The method of Claim 11 wherein the light is scanned at a speed  $\sigma$  along consecutive lines separated by a distance  $w_o$ , wherein  $\sigma_{max}$  is about 80 mm/s and  $w_o$  is about 0.5 mm.

      13. A method of forming a mold for use in forming retroreflective sheeting comprising:

25      a) forming the mold by forming three sets of parallel grooves in a body of mold material, the grooves intersecting at an angle to form a plurality of prisms, each prism having a base and three intersecting lateral faces which meet at an apex;

- b) coating at least a portion of the lateal faces with photoresist;
- c) exposing the photoresist to a substantially random speckle pattern;
- d) developing the exposed photoresist and selectively removing the developed photoresist;
- 5 e) etching the mold in the areas of the speckle pattern; and
- f) removing a portion of at least one face of a prism to form a shorter prism adjacent a taller size prism and a cut surface therebetween.

14. The method of Claim 13 further comprising forming a replica of the mold.

15. The method of Claim 14 further comprising forming the sheeting in the replica.

10 16. The method of Claim 15 further comprising removing the sheeting from the replica.

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